

**An Economic Analysis of Competitive Effects and Consumer  
Benefits from the Proposed Acquisition of  
Leap Wireless by AT&T**

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## **I. INTRODUCTION**

### **A. QUALIFICATIONS**

1. I am Mark A. Israel. I am an Executive Vice President at Compass Lexecon, an economic consulting firm, as well as Managing Director of Compass Lexecon's Washington, D.C. office. From August 2000 to June 2006, I served as a full-time member of the faculty at Kellogg School of Management, Northwestern University. I received my Ph.D. in economics from Stanford University in 2001.
2. I specialize in the economics of industrial organization, which is the study of markets and competition, including the study of antitrust and regulatory issues, as well as applied econometrics and the economics of information. At Kellogg and Stanford, I taught graduate-level courses covering topics including business strategy, industrial organization economics, and econometrics. My research has been published in leading economics journals including the *American Economic Review*, the *Rand Journal of Economics*, the *Review of Industrial Organization*, *Information Economics and Policy*, and *Antitrust Source*.
3. I have been a consultant at Compass Lexecon since 2006. My work has focused on the application of theoretical models and econometric methods to the analysis of mergers, antitrust issues including a wide variety of single-firm and multi-firm conduct, class certification, and damages estimation. My work has involved a range of industries including wireless telecommunications, cable television, other high technology industries, airlines, railroads, retail, consumer beverages, financial markets, pharmaceuticals, and publishing. I have authored expert reports, declarations, and affidavits that have been submitted to government agencies and federal courts on behalf of various clients. Among these, I have submitted declarations to the Federal Communications Commission regarding wireless competition and spectrum aggregation.

### **B. ASSIGNMENT AND SUMMARY OF CONCLUSIONS**

4. I have been asked by counsel for AT&T Inc. ("AT&T") and Leap Wireless International, Inc. ("Leap") to assess from an economic point of view the likely competitive effects and potential for consumer harm or benefits arising from the proposed acquisition of Leap by AT&T.

My work in this matter is ongoing and thus the opinions offered in this Declaration are subject to revision if new information or additional analysis warrants such revision.

5. Although my work in this matter is ongoing, the evidence I have reviewed to date—including data, documents, and declarations submitted by AT&T and Leap executives in these proceedings—leads me to the following conclusion: *Significant adverse competitive effects are unlikely and the transaction will result in the kinds of efficiencies that directly benefit consumers. As such, based on the evidence I have reviewed to date, I conclude that the proposed merger is procompetitive and in the public interest.*

6. There are no significant competitive concerns from the proposed transaction because Leap is a small and declining regional wireless provider and AT&T is a national wireless provider that is a fairly distant competitor to Leap. As I detail below, it is readily apparent that Leap is not a significant source of price constraint on AT&T today. In addition, the qualitative and quantitative evidence I have examined reveals limited substitution from Leap to AT&T and little role for AT&T to constrain Leap's prices, despite AT&T's size. As such, there is unlikely to be significant competitive harm from the transaction.

7. In contrast to the low risk of significant competitive harm from the transaction, the declarations by William Hogg, Rick Moore, and Douglas Hutcheson<sup>1</sup> provide evidence for significant efficiencies from the transaction of the sort that, as a matter of economics, should be expected to generate substantial consumer benefits. These efficiencies derive from the fact that Leap and AT&T possess assets that are more valuable in combination than separately, thus explaining why the acquisition makes economic sense. Simply put, Leap's spectrum holdings (including substantial amounts of unused spectrum), Leap's distribution network and experience in running that distribution network for its prepaid offering, and Leap's established Cricket brand name are more productive and thus more valuable when used in combination with AT&T's

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<sup>1</sup> Declaration of William Hogg, Senior Vice President, Network Planning and Engineering, AT&T Services Inc. (hereinafter, *Hogg Declaration*); Declaration of Rick L. Moore, Senior Vice President, AT&T Inc. (hereinafter, *Moore Declaration*); Declaration of S. Douglas Hutcheson, Chief Executive Officer, Leap Wireless International, Inc. (hereinafter, *Hutcheson Declaration*).

superior, nationwide network than when used on their own. Moreover, as Mr. Hogg explains, the existence of network integration efficiencies means that the Leap and AT&T networks and customers can be combined in a way that increases the company's spectral efficiency and also increases network quality for both AT&T and Leap customers.

8. As a matter of economics, consumers can expect to benefit from these efficiencies through the creation of a more attractive, nationwide prepaid offering more quickly and more effectively than either firm could offer on its own, expansion of that prepaid offering into areas not currently served by Leap, and reduced quality-adjusted prices due to better network quality and lower marginal costs than in the absence of the transaction.

9. The remainder of this Declaration is structured as follows:

- Section II reviews the prior product market definition used by U.S. regulatory agencies in reviewing wireless mergers—all mobile wireless telecommunications services—and explains why that market definition is appropriate for evaluation of the proposed transaction.
- Section III explains why the proposed transaction is unlikely to lead to significant competitive harm.
  - Leap is a small, regional competitor, meaning that significant national competitive effects are not plausible.
  - Subscriber shares in smaller geographic areas, specifically CMAs, show that, in the great majority of cases, Leap has a very small share and/or sufficient other competitors would remain after the proposed transaction to provide effective constraints on AT&T post-merger. Even if there are some smaller geographic areas where combined subscriber shares are higher, additional analysis would be needed to establish a material risk of significant competitive effects from the proposed transaction. My preliminary analysis indicates that, overall, a more granular examination of the evidence would demonstrate that any adverse competitive effects would be small and certainly not widespread. This evidence includes the

following: (1) neither the Federal Communications Commission nor the Department of Justice has considered Leap to be an important competitor in the past, and Leap recently has been declining in competitive significance; (2) porting data show that substitution between AT&T and Leap is limited; and (3) the products sold by AT&T and Leap are differentiated, with several closer competitors for each than each is for the other.

- The combined spectrum holdings of AT&T and Leap would not be likely to lead to adverse competitive effects. There are few instances where the combined spectrum holdings trigger the spectrum screen established by the Federal Communications Commission in order to identify local areas for closer scrutiny, but triggering the screen does not signify that a transaction will have adverse competitive effects. In those few areas where Leap has spectrum and the combined spectrum holdings are above the screen – often in very small amounts – other competitors have significant amounts of spectrum and likely could expand in the unlikely event that the aggregation of spectrum had any adverse effects on the output markets.
- Section IV reviews evidence of the substantial efficiencies expected from the transaction and shows that, as a matter of economics, these efficiencies are of the type that will result in direct consumer benefits.

## **II. AS THE AGENCIES HAVE FOUND IN PREVIOUS TRANSACTIONS, THE RELEVANT PRODUCT MARKET IN THIS TRANSACTION IS ALL MOBILE WIRELESS TELECOMMUNICATIONS SERVICES**

### **A. IN PRIOR WIRELESS TRANSACTIONS, THE AGENCIES HAVE USED A RELEVANT PRODUCT MARKET CONSISTING OF ALL MOBILE WIRELESS TELECOMMUNICATIONS SERVICES**

10. The Federal Communications Commission (“Commission”) and the Department of Justice (“DOJ”) (collectively, “the agencies”) have reviewed several transactions between

mobile wireless providers in recent years. In their reviews of these transactions, the agencies have consistently defined the relevant product market for antitrust purposes as including all mobile telephony/broadband services.

11. The Commission has repeatedly found that the relevant product market in which to assess a wireless merger is an all-wireless market.<sup>2</sup> Just within the past five months, the Commission has again affirmed this approach in both the Sprint/Softbank/Clearwire transaction and the T-Mobile/MetroPCS transaction. In the Sprint/Softbank/Clearwire transaction, the Commission adopted a “combined ‘mobile telephony/broadband services’ product market,” noting that no party to the proceeding challenged that product market definition.<sup>3</sup> In the T-Mobile/MetroPCS transaction, the Commission explicitly rejected a commenter’s suggestion that separate product markets exist for “value” wireless services and “premium” wireless services, stating that,<sup>4</sup>

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<sup>2</sup> Commission Staff also adopted an all-wireless product market in its 2011 analysis of the AT&T/T-Mobile merger application. In its report, Commission Staff rejected certain commenters’ suggestions that the “proposed transaction should be analyzed within separate product markets, for example, for postpaid and pre-paid wireless services, or for smartphone devices.” (*In the Matter of Applications of AT&T Inc. and Deutsche Telekom AG for Consent To Assign or Transfer Control of Licenses and Authorizations*, Staff Analysis and Findings, WT Docket No. 11-65 (hereinafter, *AT&T/T-Mobile Staff Report*), ¶ 30.) Instead, Commission Staff defined a relevant product market consisting of all wireless services, stating:

Consistent with the Commission’s approach in recent wireless transactions, where it has analyzed transactions by using a combined ‘mobile telephony/broadband services’ product market, we analyze this transaction within a product market comprised of voice and data services, including mobile voice and data services provided over advanced broadband networks.

(*AT&T/T-Mobile Staff Report*, ¶ 31.)

<sup>3</sup> *In the Matter of Applications of SOFTBANK CORP., Starburst II, Inc., Sprint Nextel Corporation, and Clearwire Corporation For Consent to Transfer Control of Licenses and Authorizations; Petitions for Reconsideration of Applications of Clearwire Corporation for Pro Forma Transfer of Control*, Memorandum Opinion and Order, Declaratory Ruling, and Order on Reconsideration, IB Docket No. 12-343, FCC 13-92, rel. July 5, 2013, ¶ 37.

<sup>4</sup> *In the Matter of Applications of Deutsche Telekom AG, T-Mobile USA, Inc., and MetroPCS Communications, Inc. For Consent To Transfer of Control of Licenses and Authorizations*, Memorandum Opinion and Order and Declaratory Ruling, WT Docket 12-301, DA 13-384, rel. March 12, 2013 (hereinafter, *T-Mobile/MetroPCS Order*), ¶ 28.



[W]e find that T-Mobile USA and MetroPCS provide services in the combined mobile telephony/broadband services product market and therefore use the product market definition that the Commission has applied in recent transactions: a combined ‘mobile telephony/broadband services’ product market that is comprised of mobile voice and data services, including mobile voice and data services provided over advanced broadband wireless networks.

12. Similarly, in its complaint against the proposed AT&T/T-Mobile merger, the DOJ asserted that there was a single product market consisting of “mobile wireless telecommunications services,” concluding that “[i]n the face of a small but significant price increase imposed by a hypothetical monopolist it is unlikely that a sufficient number of customers would switch some or all of their usage from mobile wireless telecommunications services to fixed wireless or wireline services such that the price increase or reduction in innovation would be unprofitable.”<sup>5</sup>

**B. THE AGENCIES’ ESTABLISHED PRODUCT MARKET DEFINITION IS APPROPRIATE FOR EVALUATING THE PRESENT TRANSACTION**

13. In defining a single product market, the agencies have correctly recognized that the set of options for accessing mobile wireless networks does not break neatly into distinct groupings, such as could form the basis of meaningfully distinct markets. Rather, although the underlying product being sold in each instance is access to a mobile wireless network, the product offerings make up a continuum of different bundles of features. Indeed, the lines between different types of wireless plans are even more blurred today than they were in the past—including when the agencies defined markets for all mobile wireless telecommunication services. Several specific examples demonstrate the lack of clear breaks into distinct offerings in today’s marketplace:

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<sup>5</sup> Second Amended Complaint, *United States of America, et al. v. AT&T Inc., et al.*, Civil Action No. 11-01560, September 30, 2011 (hereinafter, *AT&T/T-Mobile Complaint*), ¶ 12. DOJ alleged both local markets for all wireless services, and a national market for all wireless services sold to “enterprise and government customers.” In the latter market, DOJ discounted the importance of regional providers, stating that there were only four (national) competitors in that market and that “[l]ocal and regional providers have an insignificant presence because enterprise and government customers typically require their providers to have nationwide networks, and because local and regional carriers generally refrain from bidding for out-of-network business due to the costs associated with paying roaming rates for services in locations outside of their network footprints.” (*AT&T/T-Mobile Complaint*, ¶ 41.)

- Historically, one distinction between contract and no-contract<sup>6</sup> plans was that, with the protection of a contract in place, providers would offer upfront handset subsidies that were recouped via payments over the life of the contract (often 24 months) or a penalty for early termination.<sup>7</sup> However, marketplace developments largely have rendered this distinction between contract and no-contract plans moot. For example, T-Mobile has introduced a no-contract plan (marketed as T-Mobile’s “Jump” plan) that permits customers to buy a phone via an upfront down payment plus 24 monthly installments, with early departure from T-Mobile triggering a requirement to pay for the phone in full.<sup>8</sup> AT&T and Verizon have introduced (or announced) similar plans marketed as AT&T’s “Next” plan and Verizon’s “Edge” plan.<sup>9</sup> Leap very recently introduced a plan that provides financing over a 24-month period for certain handsets.<sup>10</sup> Such plans reduce to little more than semantics the distinction between contract plans with handset subsidies and penalties for early departure on the one hand, and no-contract plans with down payments, installment plans, and full payment upon early departure on the other.

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<sup>6</sup> I use “no-contract plan” to refer generally to wireless service plans that do not have a fixed contractual term longer than a single month.

<sup>7</sup> “T-Mobile’s move is a striking change for the industry, as all Tier 1 operators for many years have subsidized the cost of devices in exchange for customers agreeing to a two-year contract.” (Phil Goldstein, “T-Mobile kills device subsidies,” *FierceWireless*, available at <http://www.fiercewireless.com/story/t-mobile-kills-device-subsidies/2012-12-06#ixzz2ZdA7Om7u>, last visited July 30, 2013.)

<sup>8</sup> See, <http://www.androidcentral.com/t-mobile-s-new-plans-frequently-asked-questions>.

<sup>9</sup> See, <http://www.tuaw.com/2013/07/22/verizon-edge-program-lets-users-trade-in-their-old-iphones-for-n/>.

<sup>10</sup> Leap News Release, “Cricket Unveils Phone Payment Plan Enabling Customers to Buy the Phones They Really Want,” July 17, 2013 (available at <http://newsroom.leapwireless.com/Press-Releases/Cricket-Unveils-Phone-Payment-Plan-Enabling-Customers-to-Buy-the-Phones-They-Really-Want-64a.aspx>, last visited July 30, 2013).

- Another distinction that historically has existed between plans has been access to particular handsets, particularly the iPhone. Although some handsets still are available exclusively on particular networks, a wide range of providers now offer their customers the iPhone – including the most recent version, the iPhone 5 – under a wide variety of contract, no-contract, postpaid, and prepaid plans.
- In addition, service plans cannot be categorized simply as either inexpensive, no-contract plans with restrictive data limits or expensive, contract plans with unlimited data usage. For example, T-Mobile offers a no-contract plan for use with the Samsung Galaxy S III handset with unlimited voice, unlimited text, and unlimited data, for a monthly charge of \$90.<sup>11</sup> Sprint offers a two-year contract plan for use with the Samsung Galaxy S III handset with unlimited voice, unlimited text, and unlimited data, for a monthly charge of only \$80.<sup>12</sup> Although both plans offer unlimited data, the Sprint contract plan has a lower monthly charge than the T-Mobile no-contract plan. And I note that Leap has long been known for its inexpensive, no-contract plans with unlimited data, and so has always defied such a categorization.

### **III. THE PROPOSED TRANSACTION IS UNLIKELY TO LEAD TO SIGNIFICANT COMPETITIVE HARM IN THE MARKET FOR MOBILE WIRELESS TELECOMMUNICATIONS SERVICES**

14. In this section, I explain why the proposed transaction should not raise significant competitive concerns in the market for mobile wireless telecommunications services. In analyzing competition for subscribers, the Commission has, in previous wireless mergers, defined local geographic markets (based on CMAs) as well as examined the potential for a

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<sup>11</sup> See, <http://www.t-mobile.com/shop/plans/individual-plans.aspx>; <http://www.t-mobile.com/shop/Phones/cell-phone-detail.aspx?cell-phone=Samsung-Galaxy-S-III-LTE-Marble-White-16GB>. The T-Mobile plan includes a handset that is financed over 24 months.

<sup>12</sup> See, [http://shop.sprint.com/mysprint/shop\\_landing.jsp?pagename=whysprint&plan=unlimited](http://shop.sprint.com/mysprint/shop_landing.jsp?pagename=whysprint&plan=unlimited). The Sprint plan includes a handset subsidy with a two-year contract.

transaction to have anticompetitive effects in a national market.<sup>13</sup> I have not performed a detailed competitive analysis at a granular level in all local areas. However, it is evident from the facts that I set forth below that the proposed acquisition does not raise broad concerns of competitive harm. Whether the relevant geographic markets are considered to be local or national, the proposed transaction is unlikely to lead to a significant decrease in competition.

15. In addition, the Commission considers the merging parties' combined spectrum holdings at the county level, and in areas where those holdings exceed certain levels (1/3 of the total spectrum considered by the Commission to be suitable and available for the provision of mobile telephony/broadband service) the Commission examines more closely whether the proposed aggregation of spectrum will be likely to have adverse competitive effects. I also explain in this section why the spectrum that would be held by AT&T post- transaction is unlikely to lead to competitive harm.

**A. CONVENTIONAL METRICS DEMONSTRATE THAT THE PROPOSED TRANSACTION RAISES NO COMPETITIVE CONCERN NATIONALLY**

16. In this section, I show that, by standard metrics, the proposed transaction should not be expected to generate significant competitive harm on a nationwide basis.<sup>14</sup>

17. The agencies typically look at concentration metrics to provide an initial assessment of the likely competitive effects from a merger. As described in the *Horizontal Merger Guidelines*,<sup>15</sup>

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<sup>13</sup> *T-Mobile/MetroPCS Order*, ¶ 29.

<sup>14</sup> Among other things, an analysis of nationwide competition is informative regarding post-merger incentives for the large portion of AT&T's prices (*e.g.*, national rate plans) that are uniform nationwide. (In reviewing the AT&T/T-Mobile transaction, the DOJ found that, "[f]or a variety of reasons, there is little or no regional variation in the pricing plans offered by the Big Four nationwide carriers. Nationwide pricing simplifies customer service and billing, reduces consumer confusion that might otherwise result from regional pricing disparities, and allows the carriers to take advantage of nationwide advertising in promoting their services. Similarly, when the Big Four carriers make devices available to the public, they typically make them available nationwide. This too minimizes customers' confusion and dissatisfaction, and allows the carriers to take advantage of nationwide marketing." *AT&T/T-Mobile Complaint*, ¶ 18.)

Market concentration is often one useful indicator of likely competitive effects of a merger. In evaluating market concentration, the Agencies consider both the post-merger level of market concentration and the change in concentration resulting from a merger. Market shares may not fully reflect the competitive significance of firms in the market or the impact of a merger. They are used in conjunction with other evidence of competitive effects.

18. Table 1 below reports national subscriber shares and concentration measures for the four national providers and Leap, based on AT&T's internal estimates.<sup>16</sup> Although AT&T is the second largest wireless provider nationally, with just under 30 percent of subscribers, Leap has less than 2 percent of all subscribers. The increment to AT&T's national share from the proposed acquisition thus is very small, AT&T would remain the second largest provider in the country, and the change in HHI is within the range (a change of less than 100) for which the *Horizontal Merger Guidelines* indicate a merger would be "unlikely to have adverse competitive effects and ordinarily require no further analysis."<sup>17</sup>

**Table 1: National Shares and Concentration**

	AT&T	Leap	Verizon	Sprint	T-Mobile	Others	Post-merger HHI	Delta HHI
Share of Subscribers	29.8%	1.7%	34.8%	16.9%	12.8%	4.1%	2,655	99.9

*Note:* MetroPCS combined with T-Mobile.

*Source:* Based on AT&T internal estimates, March 2013.

19. In addition, as discussed below, Leap's share has been falling, which strengthens the conclusion of minimal competitive effects at the national level.

<sup>15</sup> *Horizontal Merger Guidelines*, § 5.3.

<sup>16</sup> AT&T's internal share estimates correspond to the share of subscribers served by each provider, excluding machine-to-machine connections. Subscribers of an MVNO provider generally are attributed to the underlying facilities operator.

<sup>17</sup> *Horizontal Merger Guidelines* at 19. As is always the case, small changes in shares can push a transaction just above or just below the safe harbor threshold. But such small changes would not change the basic conclusion that effects from the transaction at the national level are minimal.

**B. CONVENTIONAL METRICS AND AVAILABLE EVIDENCE DEMONSTRATE THAT THE PROPOSED TRANSACTION RAISES LITTLE CAUSE FOR COMPETITIVE CONCERN IN CMAs WHERE LEAP IS PRESENT**

**1. Leap has a small share and there are many other competitors in most CMAs where Leap is present**

20. The Commission has in previous matters used CMAs to represent local markets and used Numbering Resource Utilization Forecast (“NRUF”) data to calculate subscriber shares. I do not have access to NRUF data, but I have reviewed internal estimates of subscriber shares at the CMA level routinely prepared by AT&T. Because of the lack of a protective order in this matter, I report here only at a high level the results of my share analysis. I conclude that the transaction raises no significant competitive concerns for this set of CMAs as a whole because Leap generally has a small share, and in those CMAs where Leap’s share is non-negligible, several other substantial competitors will remain after the proposed merger.

21. AT&T’s internal share estimates show that there are few CMAs where Leap has significant share. Of 721 CMAs in the U.S.,<sup>18</sup> Leap is present with more than two percent of subscribers in only 100 CMAs,<sup>19</sup> but Leap has more than five percent of subscribers in only 43 CMAs and more than ten percent of subscribers in only 14 CMAs. In all but a handful of the

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<sup>18</sup> My analysis includes the 721 CMAs for which AT&T share estimates were available; these data include all CMAs in the 50 states and the District of Columbia, and five CMAs in Puerto Rico.

<sup>19</sup> In some local areas, the AT&T estimates show a Leap share of less than two percent; I exclude these areas from my analysis. Excluding these areas does not risk missing areas of important competitive impact. Indeed, the two-percent cutoff that I employ is the same as that used by the Commission (for example, in its most recent CMRS Competition Report) to count a wireless provider as a competitor in a local market. I note that, in its CMRS Competition Report, the Commission further stated that using a five-percent cutoff may provide “greater assurance of a meaningful choice for consumers.” (*In the Matter of Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, WT Docket No. 11-186, Sixteenth Report, FCC 13-34, rel. March 21, 2013 (hereinafter, *16<sup>th</sup> CMRS Competition Report*), ¶ 50.)

Leap’s MVNO subscribers are a *de minimis* share of its total subscribers so whether the AT&T estimates attribute those subscribers to Leap or the underlying carrier does not materially affect my share calculations.

CMAAs where Leap has a non-negligible share, consumers will continue to enjoy the benefits of competition from four national, facilities-based providers after the proposed transaction, and in some CMAAs there is additional competition from a regional provider.<sup>20</sup>

**2. Available evidence indicates that even in CMAAs where Leap has a non-negligible share, there is little reason for competitive concern**

22. To date, I have not performed a detailed competitive analysis of every CMA where Leap has a non-negligible share. In such a detailed analysis, however, several key factors beyond the shares of the merging parties and the number of post-merger competitors should be considered. My initial assessment of the data and other evidence indicates that it is very unlikely that the proposed merger will have significant adverse competitive effects and that it certainly will not have widespread adverse effects across the CMAAs where AT&T is acquiring Leap assets.

*(a) The agencies have concluded that Leap and AT&T are not particularly close competitors*

23. Statements by the Commission have confirmed that AT&T and Leap are not close competitors. In part this is because the Commission has concluded that the customer differentiation of regional providers such as Leap means that regional providers do not affect pricing or other key competitive decisions of national wireless providers.<sup>21</sup> For example, in its consideration of the AT&T/T-Mobile merger, Commission Staff concluded that:<sup>22</sup>

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<sup>20</sup> Other providers are counted as competitors based on their share of subscribers. (AT&T internal estimates.)

<sup>21</sup> DOJ reached a similar conclusion in the proposed merger of AT&T and T-Mobile, alleging that “[t]hey [local or regional providers] are therefore limited in their ability to competitively constrain the Big Four national carriers.” (*AT&T/T-Mobile Complaint*, ¶ 35.)

<sup>22</sup> *AT&T/T-Mobile Staff Report*, ¶ 65. The Commission also has concluded that national carriers set key competitive variables – pricing and service plans – at a national level, implying that regional providers have only limited competitive impact on national providers. (See, *In the Matter of Applications of Cellco Partnership d/b/a Verizon Wireless and SpectrumCo LLC and Cox TMI, LLC For Consent To Assign AWS-1 Licenses Applications of Verizon Wireless and Leap for Consent To Exchange Lower 700 MHz, AWS-1, and PCS Licenses Applications of T-Mobile License LLC and Cellco Partnership d/b/a Verizon Wireless for Consent to Assign Licenses*, Memorandum Opinion and Order and Declaratory Order, FCC 12-95, (rel. August 23, 2012), ¶ 57.)

The services offered by providers such as MetroPCS and Leap tend to attract a subset of customers who are more price sensitive, not too concerned by their more limited geographic scope, who have lower data usage rates than average, and who seem to have a lower willingness to pay for the latest handsets. These customers are unlikely to prefer the nationwide providers generally and, of particular relevance to analyzing unilateral effects, are unlikely to include those AT&T customers who have T-Mobile as their second choice (or vice versa).

24. In addition, because this statement indicates that Leap customers are “unlikely to prefer the nationwide providers” like AT&T, this means that the potential for substitution from Leap to AT&T is not likely to be large. This implies that AT&T is not an important source of constraint on Leap’s prices today and that the merger would not lead to significant upward pressure on Leap’s prices.

*(b) Empirical evidence finds little substitution between AT&T and Leap*

25. As a matter of economics, the degree of competition between two firms depends on the extent of consumer substitution between them. That is, for AT&T and Leap to be close competitors, it would need to be the case that a substantial portion of subscribers who left AT&T would switch to Leap and vice versa. Generally, the more substitutable are two companies’ products, the higher is the diversion ratio between the two, and the larger are the potential anticompetitive effects from a merger. In contrast, a lower diversion ratio means that the firms in question are not particularly close competitors, thus limiting any competitive concerns.

26. To provide an initial look at the extent of diversion between AT&T and Leap, relative to other providers, I rely on porting data from the merging parties to estimate diversion.<sup>23, 24</sup> For a

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<sup>23</sup> Porting data contains information on the number of subscriber phone numbers of a wireless provider that are transferred to another wireless provider when a subscriber switches providers and keeps his phone number. I used AT&T port-out data to calculate the diversion of AT&T subscribers to Leap as (count of AT&T phone numbers ported to Leap / count of AT&T phone numbers ported to all providers). Similarly, I used Leap port-out data to calculate the diversion of Leap subscribers to AT&T as (count of Leap phone numbers ported to AT&T / count of Leap phone numbers ported to all providers). Diversion ratios to other carriers from AT&T and Leap were computed similarly.



subscriber who switches away from one provider and keeps his phone number, porting data show to which other wireless provider the subscriber switched. Although porting (or other switching) data are one useful indicator of the degree of substitution between providers, they are imperfect and need to be evaluated in the context of other qualitative evidence (such as contained in this Declaration) and other empirical work. For example, porting data include only subscribers who keep their phone numbers when switching, meaning that the data capture only a subset of switchers. In addition (and perhaps even more important), porting data, like most other switching data, do not capture only those customers who switch due to changes in quality-adjusted prices (the relevant sample for antitrust analysis), but rather include people who switch for any reason. A likely effect of this is that porting data may capture those who switch because they are looking for something different in a new provider (*e.g.*, switching from Leap to AT&T due to faster network speeds, different handset availability, or other reasons), whereas those who switch solely due to a price increase at their current provider may be more apt to switch to another provider with a similar offering at a better price.

27. Despite these limitations, porting data provide a useful indicator of the degree of substitution between providers. An examination of recent porting data finds limited substitution between AT&T and Leap, suggesting that the diversion ratio between them is small. Porting data show that only 13 percent of subscribers leaving Leap go to AT&T.<sup>25</sup> This is only 43 percent of the diversion to AT&T that would be predicted by AT&T's overall share in CMAs where Leap has at least two percent of subscribers, indicating that AT&T's share overstates the

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<sup>24</sup> Porting (and other switching) data is imperfect for the measurement of diversion ratios, because such data capture only switching between firms, not a decision by a customer to drop wireless service altogether following a price increase by the wireless provider. Diversion ratios based on data that ignore the option of dropping wireless service altogether are necessarily too high, as they ignore an option, making my analysis conservative.

<sup>25</sup> Leap's porting data attribute AT&T resellers to AT&T; if such resellers were excluded the estimated diversion rate would be even lower.

likely competitive effect of a merger of AT&T and Leap. Indeed, this diversion rate ranks AT&T behind Sprint, T-Mobile/MetroPCS, and Verizon as a source of diversion from Leap.

28. Although only a small percentage of Leap subscribers that port out choose AT&T, an even smaller percentage of AT&T subscribers that port out choose Leap. The porting data show that only 3.3 percent of subscribers leaving AT&T go to Leap. This is only 45 percent of the diversion to Leap that would be predicted by Leap's share in CMAs where Leap has at least a two percent share of subscribers. This diversion rate to Leap places Leap significantly behind Verizon, Sprint, and T-Mobile/MetroPCS among AT&T's competitors. Thus, even in areas where Leap may have a substantial share, the fact that Leap is a tiny source of diversion from AT&T minimizes any potential competitive concerns inferred from shares alone.

(c) *Examining the details of the products offered by the merging parties, relative to other providers, confirms that AT&T and Leap are not particularly close competitors*

29. The limited substitution between AT&T and Leap shown above is not surprising but rather is consistent with the differentiated nature of their products. The current products offered by AT&T and Leap are differentiated in the features offered and the consumers to which they are targeted. Other competitors in the wireless market sell products that are more similar to AT&T's products or Leap's products than AT&T's and Leap's products are to each other.

30. Leap is an "All You Can Eat" ("AYCE") provider, offering subscribers unlimited wireless services for a flat fee each month, with no contractual obligations or credit check.<sup>26</sup> In contrast, AT&T's principal focus is on postpaid customers. I understand that, as a rule, AT&T has not tried to use its branded prepaid offering, GoPhone, to match the offerings of AYCE carriers like Cricket, who are attempting to appeal to a broader set of customers.<sup>27</sup> For example,

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<sup>26</sup> *Hutcheson Declaration*, ¶ 2.

<sup>27</sup> *Moore Declaration*, ¶ 9.

GoPhone does not offer smartphone rate plans with large data options to match the offerings of certain AYCE carriers, such as Cricket.<sup>28</sup>

31. GoPhone has had only limited success.<sup>29</sup> AT&T has recently launched a prepaid flanker brand, Aio, in a few metropolitan areas to attempt to appeal to a broader set of customers.<sup>30</sup> However, although Aio might be closer in product space to Leap than the great majority of AT&T's postpaid and other prepaid business, the existence of Aio does not raise tangible competitive concerns for the transaction. Aio is a nascent business that currently has very few subscribers, and thus it cannot be considered today to be a significant participant in the wireless market or even a significant offering among prepaid products. Moreover, Aio's likely growth is speculative, particularly given the fact that AT&T has decided that the new brand will be completely separate from the AT&T brand name and distribution network.

*(d) Other products are much closer substitutes for Cricket than the AT&T offerings*

32. In the remainder of this section, I discuss the current competitive position of both T-Mobile/MetroPCS and Sprint, further demonstrating that these providers are closer substitutes for Leap than is AT&T and that any attempt by the merged parties to raise prices (including on prepaid offerings in particular) would likely cede substantial share to each of these providers.<sup>31</sup>

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<sup>28</sup> See, rate plan offerings of GoPhone and Cricket, respectively, at [http://www.att.com/shop/wireless/plans/prepaidplans\\_and\\_html](http://www.att.com/shop/wireless/plans/prepaidplans_and_html) and <http://www.mycricket.com/cell-phone-plans#4g-lte-plans>.

<sup>29</sup> For example, in the fourth quarter of 2012, AT&T had a net addition of 780,000 postpaid subscribers (AT&T's largest quarterly increase in three years) but a net loss of 166,000 prepaid subscribers, "primarily due to declines in GoPhone and session-based tablets." (AT&T Press Release on Q4 2012 Financial Results, available at <http://www.att.com/gen/press-room?pid=23672&cdvn=news&newsarticleid=35937>, site visited July 30, 2013.)

<sup>30</sup> *Moore Declaration*, ¶ 10.

<sup>31</sup> My focus on these companies' prepaid offerings should not be taken as an indication that the companies do not also compete with their postpaid offerings in the same relevant product market. Rather, as noted earlier, the market includes differentiated products, some of which are closer substitutes than others.

33. Sprint offers prepaid service through several brands, most notably Virgin Mobile and Boost Mobile, and had an estimated share of prepaid subscribers over 20 percent and almost 20 percent of gross prepaid adds in the first quarter of 2013.<sup>32</sup> Sprint's two prepaid brands are targeted at different types of customers. For example, Virgin Mobile targets young, data-driven customers with low cost unlimited text and data plans.<sup>33</sup> Boost Mobile, on the other hand, is a "more upscale brand," with a broader target audience that includes small and medium-sized business owners who are willing to pay more for better devices and better service.<sup>34</sup> Sprint also recently announced a new Sprint-branded prepaid service, called "Sprint As You Go," which Sprint considers part of its postpaid product portfolio,<sup>35</sup> but which some analysts describe as a prepaid service.<sup>36</sup>

34. Sprint reported that its Boost and Virgin brands performed well in 2012, with year-over-year improvements in ARPU and churn, and that the two brands accounted for nearly half of the 2012 additions to the Sprint customer base.<sup>37</sup> Furthermore, Sprint recently completed transactions with Japanese firm Softbank and U.S. broadband wireless firm Clearwire that analysts believe will improve Sprint's competitive position. As noted in a recent Deutsche Bank report on Sprint, the Clearwire transaction resulted in "extensive spectrum holdings, which we believe position [Sprint] to deploy the highest capacity (and potentially highest speed) LTE

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<sup>32</sup> AT&T internal estimates.

<sup>33</sup> Rivka Little, "Sprint's Boost-Virgin Strategy Slowly Unfolds," *The Prepaid Press*, March 15, 2010 (available at [http://www.prepaid-press.com/wordpress/?page\\_id=2940](http://www.prepaid-press.com/wordpress/?page_id=2940), last visited July 30, 2103); See, also, <http://newsroom.sprint.com/news-releases/sprints-prepaid-multi-brand-strategy-focuses-on-distinct-customer-segments.htm>.

<sup>34</sup> Rivka Little, "Sprint's Boost-Virgin Strategy Slowly Unfolds," *The Prepaid Press*, March 15, 2010 (available at [http://www.prepaid-press.com/wordpress/?page\\_id=2940](http://www.prepaid-press.com/wordpress/?page_id=2940), last visited July 30, 2103).

<sup>35</sup> Sprint Nextel Corporation, Form 10-Q, for the quarter ended March 31, 2013, at 23.

<sup>36</sup> Dan Graziano, "Sprint Will Reportedly Launch Its Own Prepaid Plans on January 25<sup>th</sup>," BGR.com, January 3, 2013 (available at <http://bgr.com/2013/01/03/sprint-prepaid-service-rumor-280581/>, last visited July 30, 2013).

<sup>37</sup> See, Sprint Nextel Corporation, 2012 Q4 Earnings Conference Call, at 18, 19.

network in the US ... Sprint has the largest total spectrum portfolio in the US, and ... more spectrum that is free-and-clear to support LTE than all of its national competitors combined.”<sup>38</sup>

35. Following their recent merger, the combined T-Mobile/MetroPCS became one of the largest providers of prepaid offerings, with an estimated share of subscribers over 20 percent and an even higher share of gross prepaid adds in the first quarter of 2013.<sup>39</sup> Post-merger, the MetroPCS prepaid brand is likely to be in many more CMAs and both T-Mobile and MetroPCS prepaid products will benefit from a strong and improving network. For example, T-Mobile stated that, following the completion of the MetroPCS merger, it would expand the MetroPCS brand to “15 additional major metropolitan areas very quickly,” and it announced the launch of the MetroPCS brand in those markets less than three months later.<sup>40</sup> The CEO of T-Mobile USA recently stated that the “combination of T-Mobile and MetroPCS creates an even stronger disruptive force in the U.S. wireless market. . . . Together, as America’s Un-carrier, we’ll continue our legacy of marketplace innovation by tearing up the old playbook and rewriting the rules of wireless to benefit consumers.”<sup>41</sup> Industry observers have agreed with these assessments. For example, analyst RW Baird noted at the announcement of the T-Mobile/MetroPCS merger that the “merger is designed to provide MetroPCS with the financial and spectrum resources to roll out its product offering in additional markets, which should

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<sup>38</sup> Deutsche Bank, “Sprint Nextel Corp.: The new spectrum powerhouse; reinstating coverage at Buy,” July 11, 2013 at 2.

<sup>39</sup> AT&T internal estimates. Data for T-Mobile includes MetroPCS.

<sup>40</sup> Phil Goldstein, “T-Mobile to expand MetroPCS footprint by 100M POPs,” FierceWireless, May 15, 2013 (available at <http://www.fiercewireless.com/story/t-mobile-expand-metropcs-footprint-100m-pops/2013-05-15#ixzz2X39NYYfc>, last visited July 30, 2013); T-Mobile News Release, “MetroPCS Takes on New Markets: Doubles Reach in Less than Three Months,” July 25, 2013 (available at <http://newsroom.t-mobile.com/phoenix.zhtml?c=251624&p=irol-newsArticle&ID=1841246&highlight=>, site visited July 30, 2013).

<sup>41</sup> T-Mobile News Release, “T-Mobile and MetroPCS Combination Complete - Wireless Revolution Just Beginning,” May 1, 2013 (available at <http://newsroom.t-mobile.com/phoenix.zhtml?c=251624&p=irol-newsArticle&ID=1813495&highlight=>, last visited July 30, 2013).

benefit consumers in the form of greater choice.”<sup>42</sup> T-Mobile USA’s CFO, who was formerly CFO of MetroPCS, recently stated that “MetroPCS will continue its legacy distribution and dealer operations, and is well positioned to gain market share.”<sup>43</sup>

36. Additionally, T-Mobile has announced that former MetroPCS customers will be transitioned to the T-Mobile network to free up the legacy MetroPCS spectrum for LTE deployment. As T-Mobile has announced, the combination of the two firms’ spectrum portfolios “provides a path to at least 20x20 MHz of 4G LTE in approximately 90% of the top 25 metro areas in 2014.”<sup>44</sup> This LTE deployment likely will make the combined T-Mobile/MetroPCS an even more formidable competitor in the future (and one that would be much more difficult for Leap to compete with on its own).

37. Finally, T-Mobile has stated repeatedly (and recently) its plan to target Leap customers. For example, T-Mobile USA’s CEO recently characterized the company’s expansion of the MetroPCS brand into 15 new geographic areas as a strike at Leap’s customer base: “The best way to think about [the expansion] is T-Mobile network, T-Mobile devices, Leap customers.”<sup>45</sup>

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<sup>42</sup> Abby Ellin, “What the T-Mobile/MetroPCS Merger Means for Cost-Conscious Consumers,” ABC News online, Oct. 5, 2012 (*available at* <http://abcnews.go.com/blogs/business/2012/10/what-the-t-mobilemetropcs-merger-means-for-cost-conscious-consumers/>, *last visited* July 30, 2013).

<sup>43</sup> Phil Goldstein, “T-Mobile to expand MetroPCS footprint by 100M POPs,” FierceWireless, May 15, 2013 (*available at* <http://www.fiercewireless.com/story/t-mobile-expand-metropcs-footprint-100m-pops/2013-05-15#ixzz2X39NYYfc>, *last visited* July 30, 2013).

<sup>44</sup> T-Mobile News Release, “T-Mobile and MetroPCS Combination Complete - Wireless Revolution Just Beginning,” May 1, 2013 (*available at* <http://newsroom.t-mobile.com/phoenix.zhtml?c=251624&p=irol-newsArticle&ID=1813495&highlight=,> *last visited* July 30, 2013).

<sup>45</sup> “T-Mobile CEO Hints at New Prepaid Plan, Says He’s ‘Intrigued’ by Dish’s Vision,” *available at* <http://www.fiercewireless.com/story/t-mobile-ceo-hints-new-prepaid-plan-says-hes-intrigued-dishs-vision/2013-07-12>, *last visited* July 30, 2013; see also J. Sahagian, “This Is How T-Mobile Is Challenging AT&T in Prepaid,” at <http://wallstcheatsheet.com/stocks/this-is-how-t-mobile-is-challenging-att-in-prepaid.html/?a=viewall>.

38. In sum, given the existence of several more competitively significant prepaid brands that compete directly with Leap, each of which is well-positioned to expand, any attempt by the merged firm to raise prices would likely cede share to these other well-positioned competitors.

(e) *Leap has been declining in competitive significance in recent years and likely will decline further, meaning that current shares and diversion ratios overstate its future competitive significance*

39. Both the opinions expressed by the agencies on the lack of close competition between AT&T and Leap and the empirical evidence presented thus far are retrospective analyses reflecting historical conditions. A proper analysis of competitive effects would look at expected competitive conditions in the future, not just current conditions. Such a forward-looking perspective reinforces the lack of competitive concerns from the proposed transaction, as Leap's share has declined markedly over the last fifteen months and Leap faces considerable difficulties in competing in future.

40. The number of Leap subscribers has declined from 6.2 million in March 2012 to 4.8 million in June 2013, a 22 percent reduction.<sup>46</sup> Because the raw number of subscribers may decline due to poor economic conditions – which could be reversed – a loss in subscribers over the last 15 months alone does not indicate that Leap will fail to recover or continue to decline. However, the loss in subscribers already has had real effects on Leap's competitive future: the subscriber losses have reduced Leap's profitability and, combined with a high debt load, made it difficult for Leap profitably to finance capital expenditures (including for LTE deployments), purchase additional spectrum, and make other business investments needed to meet customer demands and remain competitive.<sup>47</sup> Leap sought to reduce its costs in response to its ongoing losses by reducing its capital expenditures in 2012 to only about two-thirds of the originally budgeted amount,<sup>48</sup> and Leap reduced its capital expenditure budget even further in 2013.<sup>49</sup>

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<sup>46</sup> *Hutcheson Declaration*, ¶ 5.

<sup>47</sup> *Id.*, ¶¶ 6-7, 12.

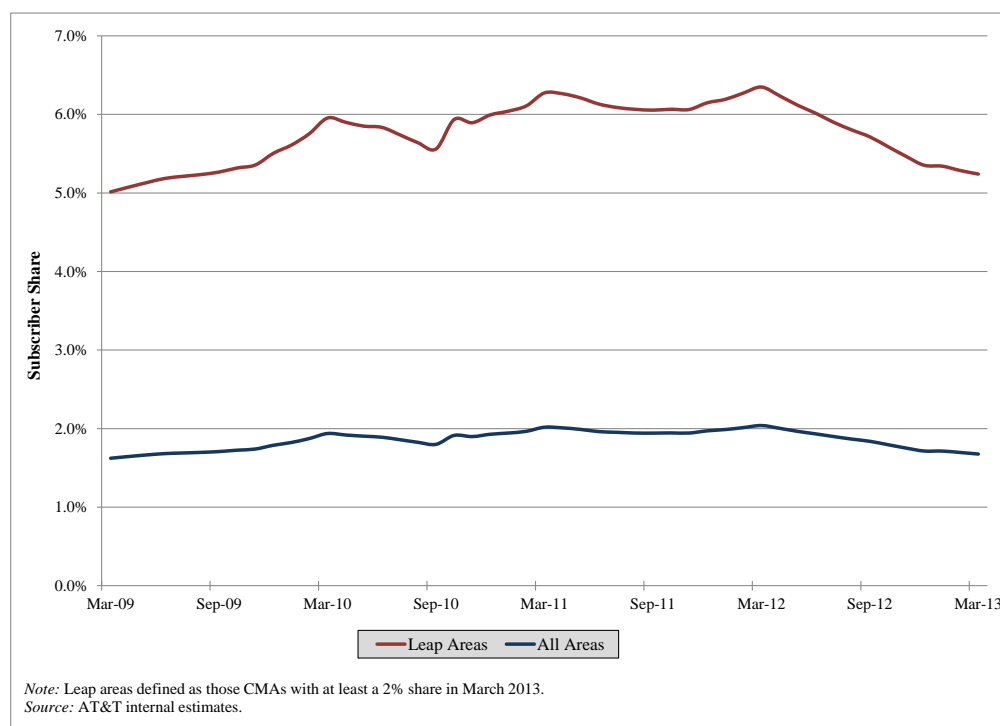
<sup>48</sup> *Id.*, ¶ 7.

<sup>49</sup> *Id.*

Hence, Leap's subscriber decline may fairly be expected to continue because, as detailed by Leap's CEO, Leap faces obstacles to launching a competitive LTE network across its network footprint and customers are increasingly demanding 4G data services and other companies are moving ahead with their rollouts of 4G LTE services.<sup>50</sup>

41. In addition, Leap has not only lost subscribers, which negatively impacts its ability to invest in its network, it also has lost share, indicating that its position relative to other wireless providers is declining. Figure 1 below shows Leap's share of subscribers across all CMAs and across the CMAs where Leap has at least two percent of subscribers. Leap's share grew between March 2009 and March 2012, but then began a rapid decline. If this decline in share continues, then Leap's competitive significance would also decline further.

**Figure 1: Leap Subscriber Share, March 2009 – March 2013**



42. In summary, Leap's decline in subscribership started fairly recently, but it has been rapid and may be difficult to reverse given the obstacles Leap faces in developing a competitive LTE

<sup>50</sup> *Id.*, ¶¶ 4, 11, 12, 16.



offering and thus is in an increasingly weak position relative to its competitors. Given that Leap was not considered to be an effective competitive constraint to the national providers in the past, it is difficult to see how an even weaker Leap could be an effective competitive constraint in the future.

**C. CONVENTIONAL METRICS AND AVAILABLE EVIDENCE DEMONSTRATE THAT THE PROPOSED TRANSACTION RAISES LITTLE CAUSE FOR COMPETITIVE CONCERN REGARDING SPECTRUM HOLDINGS**

**1. AT&T and Leap's combined spectrum holdings are below the Commission's spectrum screen in the great majority of CMAs where Leap has spectrum**

43. The combination of AT&T's and Leap's spectrum holdings does not indicate a reason for concern across CMAs. Leap holds spectrum licenses in 356 CMAs that will be transferred to AT&T. Of these 356 CMAs, only 38 CMAs have at least one county in which the combined spectrum holdings exceed the Commission's spectrum screen threshold. None of these 38 CMAs are among CMAs 1-100. In most areas where the combined holdings of AT&T and Leap trigger the screen, the overage is quite small. For example, in 21 of the 38 CMAs at issue, in every county in which the screen is triggered, the threshold is exceeded by just five MHz or less. Thus, in the vast majority of Leap's 356 CMAs, the combined AT&T-Leap spectrum holdings either do not trigger the screen or exceed the threshold by only a small amount.

44. In addition, even though there are some CMAs where the combined AT&T-Leap spectrum holdings trigger the Commission's spectrum screen, the spectrum screen threshold currently is set too low for it to provide a meaningful indication of whether competition in wireless services might be curtailed due to one provider's accumulation of spectrum. Due to Commission actions and technological advances, the spectrum suitable for use in the provision of wireless services has increased over time. This has at least two consequences for application of the spectrum screen. First, even if the screen were helpful, it must be updated to account for this additional spectrum. Although the Commission recently added WCS spectrum to its screen calculations, other pieces of spectrum are suitable and indeed in some cases are already being

deployed for the provision of wireless services.<sup>51</sup> Thus the total amount of relevant spectrum is larger than that currently considered by the Commission. Consequently, even if one thought that one-third of the total was an appropriate threshold level, the Commission's threshold is too low (measured in MHz) because the total spectrum used in the calculation excludes spectrum that should be included. Second, the more spectrum that is available, all else equal, the lower the threshold can be (measured as a percentage of total available spectrum) and still ensure that enough spectrum remains to support the competitive provision of service by other providers. If more spectrum were available, then the spectrum screen threshold (in MHz) needed to ensure that two competitors each could have licenses to a particular amount of spectrum increases one-for-one with the increase in the total spectrum. When the threshold is set at a fixed share (one-third) of the total available spectrum, however, the threshold increases only one MHz for every three MHz increase in total available spectrum.<sup>52</sup> This results in a spectrum screen that becomes increasingly restrictive over time as spectrum expands. Thus, even where the spectrum screen is triggered, the screen threshold itself is set too low.

**2. Available evidence reveals that AT&T's and Leap's combined spectrum holdings cause little competitive concern**

45. In general, an aggregation of spectrum in the hands of one provider causes a concern only if other providers are sufficiently restricted in their holdings of spectrum that they are unable to counter an anticompetitive output restriction. Looking across the CMAs where Leap has spectrum that will be acquired by AT&T reveals no such concern with regard to the post-merger spectrum holdings of the merging parties. This follows because the output expansion needed to counter an anticompetitive post-merger output restriction by the merging parties is small enough

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<sup>51</sup> See, Mark A. Israel and Michael L. Katz, "Economic Analysis of Public Policy Regarding Mobile Spectrum Holdings," November 28, 2012, attachment to Comments of AT&T Inc., *In the Matter of Policies Regarding Mobile Spectrum Holdings*, WT Docket No. 12-269, ¶ 85.

<sup>52</sup> *Id.*, ¶ 64.

that the other providers in the industry – all of whom have sizable LTE networks<sup>53</sup> – would almost surely have sufficient capacity to expand to counter the threat.<sup>54</sup>

46. In addition, the CMAs where the combined AT&T and Leap spectrum holdings exceed the Commission's screen generally are areas where concerns about spectrum aggregation are most obviously without basis, as they are less populous areas where wireless networks tend to experience fewer capacity constraints and thus where entry and expansion are not generally constrained by lack of adequate capacity to carry additional wireless traffic. None of the CMAs are among the most populous in the country, with population densities not only far below that of CMAs 1-100, but also far below the median CMA population density.

#### **IV. THE PROPOSED TRANSACTION CREATES SUBSTANTIAL EFFICIENCIES THAT PROVIDE DIRECT CONSUMER BENEFITS**

##### **A. AS INDICATED BY THE HOGG, MOORE, AND HUTCHESON DECLARATIONS, THE TRANSACTION WILL RESULT IN SUBSTANTIAL EFFICIENCIES**

47. AT&T and Leap each have explained their strategic rationales for the transaction via other Declarations they have submitted and their joint Public Interest Statement.<sup>55</sup> The fact that

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<sup>53</sup> Verizon's 4G LTE network currently covers more than 298 million people (about 95 percent of the U.S. population). Sprint expects its 4G LTE network to cover 200 million people by the end of 2013. T-Mobile has LTE service covering 157 million people. (<http://news.verizonwireless.com/LTE/Overview.html>; <http://newsroom.sprint.com/news-releases/sprint-turns-up-4g-lte-in-41-more-locations-expands-lte-coverage-to-151-markets.htm>, Sue Marek, "T-Mobile exceeds mid-year LTE deployment goal, hits 116 markets," FierceWireless, July 10, 2013 (available at <http://www.fiercebroadbandwireless.com/story/t-mobile-exceeds-mid-year-lte-deployment-goal-hits-116-markets/2013-07-10#ixzz2ZzpcJ5EV>, last visited July 30, 2013).

<sup>54</sup> To see this, note that Leap has a small share of subscribers, just over five percent across the CMAs in which it has non-negligible share. Even if Leap's output were to decrease by 20 percent post-merger, that equates to about one percent of all subscribers in the Leap CMAs. Providers other than AT&T and Leap have about 65 percent of subscribers in the Leap CMAs (based on internal AT&T estimates). This means that if the other providers were able to expand their subscriber base by (on average) well less than two percent (.01/.65), they could replace the lost Leap output. Hence, given the spectrum holdings of providers other than the merging parties in all areas where Leap currently has non-negligible share, it is apparent that there is no area where other providers do not collectively have the ability to respond to a post-merger output restriction.

the transaction is in the interest of both parties follows from a simple economic consideration: Leap currently possesses assets that are more productive when integrated into the AT&T large-scale, nationwide network than they are on their own. As such, economics teaches that the parties can engage in a transaction that leaves them both better off, with AT&T paying a price below its value for the assets but above Leap's value.<sup>56</sup>

48. These Leap assets, and the reasons why they are more valuable on the AT&T network, include:

- *Leap's spectrum holdings.* Leap holds PCS and AWS spectrum licenses in 356 CMAs, covering approximately 137 million people ("POPs"), with an average of 20.7 MHz of spectrum per CMA.<sup>57</sup> Leap has not deployed all of its spectrum, however, and its network footprint covers only 96 million of the approximately 137 million POPs covered by its spectrum (meaning that roughly 30 percent of the POPs covered by Leap's spectrum holdings live in areas where Leap does not operate using its own network).<sup>58</sup> Even within its network footprint, Leap has

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<sup>55</sup> Description of Transaction, Public Interest Showing, and Related Demonstrations, § 4; *Moore Declaration*, ¶¶ 4-7; *Hogg Declaration*, ¶¶ 7-12.

<sup>56</sup> In the study of business strategy, assets that are more valuable together than separately—and thus that may form the basis of mutually profitable transactions in which one party purchases the assets of the other party—are known as "cospecialized assets." (See, David Besanko, *et al.* (2004), *Economics of Strategy*, 3<sup>rd</sup> ed. (New York, NY: John Wiley & Sons) at 427.)

<sup>57</sup> Data on covered POPs from *Hutcheson Declaration*, ¶ 2. Leap spectrum in each CMA is calculated as the population-weighted MHz of spectrum held in each county of the CMA, aggregated across all counties in the CMA. To aggregate across CMAs, I also weight by population. I have restricted my analysis to spectrum bands that currently are included in the FCC's spectrum screen. As I have noted in an earlier Commission proceeding, however, other spectrum bands are available for (and in some cases are currently being used to provide) wireless services, including LTE service. (Mark A. Israel and Michael L. Katz, "Economic Analysis of Public Policy regarding Mobile Spectrum Holdings," November 28, 2012, attachment to Comments of AT&T Inc., *In the Matter of Policies Regarding Mobile Spectrum Holdings*, WT Docket No. 12-269, ¶ 85.)

<sup>58</sup> *Hutcheson Declaration*, ¶ 2.

deployed just 42 percent of its spectrum.<sup>59</sup> Because the AT&T network also operates using PCS and AWS spectrum, AT&T will be able to put this spectrum to use, thus utilizing currently unutilized spectrum in many CMAs.<sup>60</sup> In addition, AT&T will more effectively utilize the spectrum in Leap's network footprint by using it on a more spectrally efficient network and a denser combined grid of cell sites.<sup>61</sup>

- *Other Leap assets.* In addition to its spectrum holdings, Leap has several unique assets, including the Cricket brand name, a differentiated customer base, a distribution network, and know-how. Such assets are more valuable when combined with the superior AT&T network, which includes nationwide coverage, more complete coverage due to a larger network of cell sites in areas served by both AT&T and Leap, and access to a broader/faster LTE network.<sup>62</sup> As described in the Moore Declaration, AT&T expects that it will be able to use the Cricket brand name to create a national prepaid offering more quickly and more effectively than it could have done with its own Aio offering, thus benefiting customers in areas outside Cricket's current network.<sup>63</sup>

49. In this section, I rely on the statements made in the Hogg, Moore, and Hutcheson Declarations and explain why the combination of complementary Leap and AT&T assets, described by the applicants, creates not just benefits for both parties but also benefits for consumers of mobile wireless services.<sup>64</sup> These consumer benefits derive from the fact that

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<sup>59</sup> *Id.*, ¶ 10.

<sup>60</sup> *Hogg Declaration*, ¶¶ 6-8.

<sup>61</sup> *Id.*, ¶¶ 9-10.

<sup>62</sup> *Id.*, ¶¶ 10-12; *see also*, *Moore Declaration*, ¶¶ 16-17.

<sup>63</sup> *Moore Declaration*, ¶¶ 8-14.

<sup>64</sup> At this point, I have not conducted an independent economic analysis of the statements made in these Declarations. I have reviewed the Declarations to confirm that the statements make sense as a matter of economics and based on my experience in mobile wireless transactions. Such

combining Leap's spectrum, brand, customer base, and distribution network/know-how with AT&T's nationwide network and scale yields lower marginal costs and/or better network quality than either firm could achieve on its own in the near term. As a matter of fundamental economics, both reduced marginal cost and improved quality lead to lower quality-adjusted prices, benefiting consumers.<sup>65</sup>

50. Throughout this section, in addition to explaining the sources of lower marginal cost and higher quality, I rely on a basic economic concept: if the transaction increases the quantity of mobile wireless services sold, it should be expected to enhance consumer welfare. If, all else equal, a mobile wireless provider is able to attract more subscribers and/or reduce its churn, it must be offering consumers a better product. Thus, I explain how the efficiencies created by the transaction are likely to increase industry output and reduce the parties' churn, thus demonstrating the associated consumer benefits.

51. In this section, I describe five sources of consumer benefits from the transaction, each of which yields lower quality-adjusted prices and higher output:

- In CMAs where Leap has spectrum but Cricket is not currently operating, the transaction will result in utilization of currently unutilized Leap spectrum, thus directly increasing output.
- The transaction will enable expansion of the Cricket brand into areas where it is currently absent (and do so more quickly and more effectively than AT&T's Aio brand could establish an effective competitive presence in such areas across the country), thus increasing consumer choice and mobile wireless competition in those areas.

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statements by experienced business executives are the sort of evidence on which economists commonly rely.

<sup>65</sup> Even a monopolist that realizes marginal cost reductions will lower prices. (See, Dennis W. Carlton and Jeffrey M. Perloff (2005), *Modern Industrial Organization*, 4<sup>th</sup> ed., at 571.)

- In current Cricket CMAs, current and future Cricket customers will benefit from the superior quality of the AT&T network, thus reducing the quality-adjusted price to Cricket consumers, as evidenced by expected reductions in churn.
- In CMAs where Cricket is currently active, the transaction will result in network integration efficiencies due to the ability to deploy AT&T's and Leap's joint spectrum holdings on AT&T's more spectrally efficient LTE network and over AT&T's cell tower network as expanded by the integration of many of Leap's existing cell sites, thus improving network quality and/or lowering marginal costs.
- Cricket customers will benefit from lower quality-adjusted prices (than absent the transaction) due to reduced marginal costs associated with roaming, customer service, backhaul, *etc.*

**B. AS A MATTER OF ECONOMICS, THESE EFFICIENCIES WILL RESULT IN DIRECT CONSUMER BENEFITS.**

**1. Increased spectrum utilization**

52. The first source of consumer benefit is straightforward: AT&T will more fully utilize Leap's spectrum, thus leading directly to expanded industry output.

53. As noted above, Leap currently has AWS and PCS spectrum covering approximately 137 million POPs, but it has built out service in areas covering only 96 million POPs.<sup>66</sup> Within the service areas covering 96 million POPs, Leap only utilizes 42 percent of its spectrum.<sup>67</sup> Leap does not expect to be able to increase its spectrum utilization significantly in the near future because its debt load is too high to allow it to access financing to invest in all the assets needed (including spectrum and facilities) for the profitable deployment of a robust LTE network

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<sup>66</sup> *Hutcheson Declaration*, ¶ 2.

<sup>67</sup> *Id.*, ¶ 10; Jerry Elliott, COO, Leap Wireless International, Inc., 3Q 2012 Earnings Conference Call (August 6, 2012), at 3 ("In terms of what percentage is not used, we have got spectrum covering 137 million PoPs, we operate covering about 95 million PoPs, we said out of those 95 million about 40% of the spectrum is utilized . . . across those 95 million PoPs.").

outside of a limited area.<sup>68</sup> Currently, Leap has built out only eleven metro areas covering 21 million POPs.<sup>69</sup>

54. In contrast, as explained in the Hogg Declaration, AT&T intends to utilize Leap's spectrum for AT&T's LTE network.<sup>70</sup> In particular, as explained by Mr. Hogg, AT&T is currently using AWS spectrum as part of its LTE rollout (along with Lower 700 MHz B and C Block spectrum), and AT&T is in the process of deploying PCS spectrum for LTE service in several areas.<sup>71</sup> AT&T can deploy Leap's spectrum in a more spectrally efficient manner that will result in faster and better quality LTE service for both Leap and AT&T customers.<sup>72</sup>

55. As Mr. Hogg explains, AT&T preliminarily has determined that in many CMAs it will be able to deploy the Leap spectrum that is currently unutilized without having to transition any Leap customers to AT&T. In approximately 50 CMAs where AT&T will already be utilizing AWS spectrum for LTE service at the time of closing, AT&T estimates that it will be able to deploy Leap's unused contiguous AWS spectrum in as little as 60-90 days.<sup>73</sup> Moreover, based on its plans for deploying additional spectrum to expand LTE capacity in certain CMAs, AT&T estimates that it will be able to deploy unused Leap spectrum in over 160 CMAs within 12 months after closing.<sup>74</sup>

56. The benefits from increased spectrum utilization are straightforward. First, as Mr. Hogg explains, the combined spectrum will enable the company to "deploy LTE services in larger, more robust, contiguous 10x10 MHz (or greater) blocks of spectrum," including in areas where AT&T currently has no AWS spectrum or where it could only deploy AWS spectrum in a 5x5

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<sup>68</sup> *Hutcheson Declaration*, ¶ 12.

<sup>69</sup> *Id.*, ¶ 9.

<sup>70</sup> *Hogg Declaration*, ¶ 7. AT&T's LTE network now covers more than 225 million people and is expected to cover nearly 270 million people by the end of 2013. (*Id.*, ¶ 6.)

<sup>71</sup> *Id.*, ¶ 6.

<sup>72</sup> *Id.*, ¶ 7.

<sup>73</sup> *Id.*, ¶ 8.

<sup>74</sup> *Id.*



LTE configuration absent the transaction.<sup>75</sup> Mr. Hogg also explains that “[a]s a result of AT&T’s generally more spectrally efficient HSPA+ and LTE technologies, customers of both companies, in particular Leap customers who only have access to CDMA EVDO services today, will see improvements in throughput speeds and latency.”<sup>76</sup> The consumer benefits associated with these more spectrally efficient deployments are clear because, as Mr. Hogg describes, “speed and spectral efficiency improvements translate into an improved customer experience, including, among other benefits, faster streaming of video, faster uploading of image and video files, and a more responsive and robust web browsing experience.”<sup>77</sup>

57. Second, increased spectrum utilization reduces the marginal costs of expansion for reasons the Commission has explained.<sup>78</sup> As wireless providers expand, *i.e.*, serve more subscribers, they must expand network capacity (or sacrifice quality), and the cheapest way to do so is generally to deploy unused spectrum on existing towers.<sup>79</sup> Once a wireless firm runs out of spectrum to deploy on existing towers, it has to start increasing the “re-use” of spectrum by adding new cell towers in a given area (“splitting cells”). As a capacity-expansion alternative, I understand that adding new towers is significantly more expensive than adding spectrum on existing towers, often increasingly so as firms begin running out of desirable locations for towers

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<sup>75</sup> *Id.*, ¶ 7.

<sup>76</sup> *Id.*, ¶ 11.

<sup>77</sup> *Id.*

<sup>78</sup> See, for example, “The Public Safety Nationwide Interoperable Broadband Network: A New Model for Capacity, Performance and Cost,” FCC White Paper, June 2010, at 5. See, also, “Mobile Broadband: The Benefits of Additional Spectrum,” Federal Communications Commission, OBI Technical Paper No. 6, October 2010. In the former paper, the Commission explains that cellular network capacity is approximately equal to (the number of cell sites \* the number of sectors per cell site \* the amount of spectrum deployed per sector \* spectral efficiency) ÷ the frequency reuse factor. Because of its multiplicative form, this formula implies that the marginal cost of increasing capacity is lower when spectrum is combined and fully utilized and that combining spectrum and cell sites from different providers increases capacity, *i.e.*, there are increasing returns to scale.

<sup>79</sup> It is important to note that a provider cannot “avoid” these costs by simply choosing not to build as many towers. Failure to undertake infrastructure investments means network quality will fall and the associated “costs” will still affect quality-adjusted prices.

in an area. Hence, by deploying Leap's spectrum assets more fully, AT&T can substantially reduce its incremental expansion costs, thus creating incentives to lower prices (relative to what they would be without such spectrum) and to expand output.

58. Put simply, the proposed transaction will result in the transfer of spectrum from a provider that is underutilizing it today and has limited opportunities profitably to increase usage going forward to one that has clear plans to deploy the spectrum in the near term, meaning the spectrum will be used more efficiently post-transaction. The benefits to consumers are clear; as stated in the National Broadband Plan, "[m]ore efficient allocation and assignment of spectrum will reduce deployment costs, drive investment and benefit consumers through better performance and lower prices."<sup>80</sup>

## **2. National expansion of Cricket brand**

59. A second source of consumer benefits comes from AT&T's plan to utilize its nationwide network to extend the Cricket brand beyond its current footprint to national distribution.<sup>81</sup> Introducing the Cricket brand (on the AT&T network) into many new areas will expand consumer choice and increase competition in those areas.

60. Before turning to the details of the present transaction, it is worth considering the lessons of recent history. In explaining its decision to purchase MetroPCS, T-Mobile pointed to, among other things, the ability to extend the MetroPCS brand well beyond the MetroPCS standalone footprint in a way that MetroPCS could not do on its own.<sup>82</sup> And, as described in Section III.B.2(d) above, it appears that T-Mobile is now delivering on this promise.

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<sup>80</sup> See, Connecting America: The National Broadband Plan, (rel. March 16, 2010), *available at* <http://download.broadband.gov/plan/national-broadband-plan.pdf>, at XII.

<sup>81</sup> Cricket currently has limited distribution outside of the area where it operates its own network.

<sup>82</sup> *In the Matter of Applications of Deutsche Telekom AG, T-Mobile USA, Inc., and MetroPCS Communications, Inc. For Consent To Transfer of Control of Licenses and Authorizations*, Description of Transaction, Public Interest Showing, and Related Demonstrations, WT Docket No. 12-301, at iii.

61. Similar to MetroPCS’s position before the T-Mobile transaction, Cricket appears largely confined to its current footprint. As described in the Hutcheson Declaration, Leap has focused, since its inception, on providing facilities-based service in selected metropolitan areas only.<sup>83</sup> Leap’s network footprint covers less than one-third of the U.S. population.<sup>84</sup> Leap has attempted to expand its retail footprint through an MVNO arrangement, but that strategy has fallen far short of expectations, and Leap has significantly reduced the number of retailer locations selling Cricket service both inside and outside of its network footprint.<sup>85</sup> Leap’s 3G MVNO offering has only a small number of customers, and Leap is not yet offering 4G on an MVNO basis.<sup>86</sup> In addition, as described in the Hutcheson Declaration and explained above, Leap’s limited spectrum holdings and large debt burden have significantly hindered Leap’s ability profitably to build beyond its currently limited footprint.<sup>87</sup>

62. In contrast, AT&T has a nationwide network, and I understand it faces borrowing costs well below Leap’s borrowing costs. In addition, AT&T has a stated intention to take an AYCE, no-contract product national. As explained in the Moore Declaration, AT&T has launched Aio (starting with a small number of metro areas) in an attempt to “increase its appeal to a broader set of customers.”<sup>88</sup> But as Mr. Moore explains further, “Aio was conceived as a start-up, completely separate and apart from the AT&T brand and existing distribution channels. Today,

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<sup>83</sup> *Hutcheson Declaration*, ¶ 2.

<sup>84</sup> Leap’s network covers 96 million POPs, and the U.S. population is about 314 million. (*Id.*, ¶ 2; <http://quickfacts.census.gov/qfd/states/00000.html>.)

<sup>85</sup> “We significantly reduced the number of locations in which we offer our products in the nationwide retail channel from approximately 13,000 locations at June 30, 2012 to approximately 5,000 locations at March 31, 2013, which may impact our sales volumes.” (Leap Wireless International, Inc., Form 10-Q for the quarter ended March 31, 2013, at 49.) *See also*, *Hutcheson Declaration*, ¶ 8.

<sup>86</sup> *Id.*, ¶ 13.

<sup>87</sup> *Id.*, ¶¶ 6-7, 12.

<sup>88</sup> *Moore Declaration*, ¶ 10.

Aio still needs to establish widespread retail distribution, build brand recognition, and develop a significant customer base.”<sup>89</sup>

63. The Moore Declaration contains more detail on AT&T’s approach and the expected benefits,<sup>90</sup> but several things are clear: (i) AT&T has intentions to take an AYCE no-contract offering national; (ii) AT&T has a greater ability to take the Leap offering national than does Leap due to AT&T’s nationwide network and lower borrowing costs; (iii) Leap brings both experience in distributing a prepaid offering and an established brand name that AT&T would not otherwise have in the new Aio brand;<sup>91</sup> (iv) AT&T should be able to build a national prepaid offering faster and more effectively by starting with an established brand and distribution network/know-how than by building a product from scratch, as it would have to do with Aio;<sup>92</sup> and (v) due to the efficiencies associated with the proposed transaction, *any* prepaid offering from AT&T will be more effective (with higher quality and lower marginal cost and thus lower quality-adjusted price) than such an offering would be on its own.

### 3. Improved network quality for Cricket customers

64. Even in CMAs where both Leap and AT&T are present today, the proposed transaction will create a product offering that does not exist today: the Cricket brand and distribution network using the AT&T mobile wireless network. As a result, current Cricket customers will experience improved network quality, and new customers—who might previously have chosen Cricket but-for its lower-quality network—will be able to switch to Cricket.

65. Although the Cricket brand name and distribution network/know-how are valued by Cricket’s customer base, Leap’s network lags behind competitors, which at least partially explains Cricket’s recent struggles. As noted above, Leap has rolled out LTE only in limited areas, meaning that 65 percent of Cricket subscribers do not have access to Leap LTE in their

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<sup>89</sup> *Id.*

<sup>90</sup> *Id.*, ¶¶ 8-14.

<sup>91</sup> *Id.*, ¶ 10-13.

<sup>92</sup> *Id.*

home areas.<sup>93</sup> Post-transaction, following the 18-month time period that AT&T estimates it will take to transition Cricket customers to the AT&T network, the Cricket customers will have access to LTE service wherever AT&T has deployed it,<sup>94</sup> thus creating an option for many of them—Cricket service on an LTE network—that does not exist for them today. These areas where Leap does not offer LTE service today but where Cricket customers will be able to access AT&T’s LTE service after the transition include Washington, D.C.; St. Louis, Missouri; Chattanooga, Tennessee; San Diego, California; Moffat, Colorado; Pine Bluff, Arkansas; and Steubenville-Weirton, Ohio.<sup>95</sup>

66. Moreover, Mr. Hutcheson notes that Leap only averages 23 MHz of spectrum where it operates and that, even in areas where it has rolled out LTE, it needs to support its base of 3G CDMA customers using much of this spectrum.<sup>96</sup> As a result of having limited spectrum but still needing to support 3G service, 2/3 of the 21 million Cricket subscribers with access to LTE are in areas where Leap’s LTE network operates on 3x3 MHz channels, with the remaining 1/3 in areas with 5x5 MHz channels.<sup>97</sup> As Mr. Hogg explains, Leap’s LTE deployments generally support throughput speeds on par with AT&T’s HSPA+ network and lower than AT&T’s more robust LTE network.<sup>98</sup> The difference in speed between these models is quite dramatic, with a 10x10 deployment yielding peak speeds more than twice as fast as deployment in 5x5 channels.<sup>99</sup> AT&T has deployed LTE in a 10x10 MHz configuration in, for example,

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<sup>93</sup> *Hutcheson Declaration*, ¶ 9.

<sup>94</sup> As noted above, Mr. Hogg indicates that “AT&T now covers more than 225 million people with its 4G LTE network. The company’s LTE network is expected to cover nearly 270 million people in 400 markets by the end of 2013, and its LTE deployment is expected to be substantially complete by the summer of 2014.” (*Hogg Declaration*, ¶ 6.)

<sup>95</sup> *Id.*, ¶ 11.

<sup>96</sup> *Hutcheson Declaration*, ¶ 11.

<sup>97</sup> *Id.*

<sup>98</sup> *Hogg Declaration*, ¶ 5.

<sup>99</sup> *Id.*, ¶ 11, n. 6. Verizon’s LTE network is estimated to have average download speeds of 14.3 Mbps and average upload speeds of 8.5 Mbps, while customers on Leap’s LTE network

Philadelphia, Pennsylvania; Houston, Texas; Tucson, Arizona; Wilmington, Delaware; Las Vegas, Nevada; and Brownsville, Texas,<sup>100</sup> and thus Cricket customers in those areas would be among those who would benefit from having access to AT&T's faster LTE network. As noted above, these faster speeds (and the associated spectral efficiency) generally result in a better customer experience on the network.

67. In addition to the LTE-related advantages, the AT&T network offers several other advantages for Leap customers. As explained by Mr. Hogg, these benefits include the following:

- “Greater cell site density will enable faster data speeds and improved coverage by reducing places where customers experience dropped connections, dead spots, and coverage gaps.”<sup>101</sup>
- “Leap customers also will enjoy access to AT&T's nationwide network post-transaction, rather than relying on third-party networks outside of Leap's limited network footprint, further expanding the benefits of more seamless service and a better customer experience.”<sup>102</sup>

68. As explained in the Moore Declaration, the expectation that improved network quality will generate significant consumer benefits has been accounted for in AT&T's financial modeling of the proposed transaction by incorporating the revenue benefits of lower Cricket churn.<sup>103</sup> This is a good example of the core logic of the transaction: putting Cricket subscribers on the AT&T network is expected to reduce their churn, meaning that AT&T would generate more revenue from those subscribers than Leap could (helping to motivate the transaction from a

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experience average download speeds of 3 Mbps and average upload speeds of 1 Mbps. (*See, Huteson Declaration*, ¶ 11.)

<sup>100</sup> *Hogg Declaration*, ¶ 11.

<sup>101</sup> *Id.*, ¶ 12.

<sup>102</sup> *Id.*

<sup>103</sup> *Moore Declaration*, ¶ 23.

strategic and financial point of view), while simultaneously demonstrating benefits to Cricket consumers.

#### 4. Network integration efficiencies

69. The network integration efficiencies described in the Hogg Declaration also will create direct consumer benefits in current Cricket CMAs. These will take the form of improved network quality (due to reduced congestion), as well as lower marginal costs; thus quality-adjusted prices will be lower and output higher than they would be absent the transaction.

70. As explained in the Hogg Declaration, the network integration efficiencies from the combination of Leap and AT&T networks come from at least the following sources:

- AT&T will be able to make use of spectrum licenses that Leap currently is not using in as little as 60-90 days in areas where AT&T will have LTE service utilizing contiguous AWS spectrum and, more generally, within 12 months after closing in certain CMAs where AT&T plans to deploy additional spectrum to increase LTE capacity.<sup>104</sup>
- AT&T plans to deploy the Leap spectrum on the AT&T LTE network, which is generally more spectrally efficient than Leap's network.<sup>105</sup>
- The spectrum that Leap is currently utilizing can be "re-used" via the denser combined cell tower network of AT&T and Leap. And by adding some Leap cell towers to AT&T's network, the AT&T spectrum can be re-used over more cell towers.<sup>106</sup> As explained above, better ability to re-use spectrum over a denser cell network provides a lower cost method of expanding capacity, relative to the need

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<sup>104</sup> Hogg Declaration, ¶ 8.

<sup>105</sup> *Id.*, ¶ 7. Because AT&T also uses PCS spectrum for AT&T's HSPA+ technology, AT&T may use a portion of Leap's PCS spectrum on AT&T's HSPA+ network as required to support transitioning customers. (*Id.*, ¶ 7, n. 5.)

<sup>106</sup> For a related discussion, *see*, "Mobile Broadband: The Benefits of Additional Spectrum," Federal Communications Commission, OBI Technical Paper No. 6, October 2010.

to split cells or otherwise expand capacity. The ability to achieve this efficiency and thus reduce costs of any required capacity expansion will be fully realized once the networks are integrated.

71. The transaction's network integration efficiencies created by combining spectrum and cell towers create customer benefits in at least two ways. First, as explained in the Hogg Declaration, these network integration efficiencies will improve network quality for the customers of AT&T and Leap,<sup>107</sup> thus directly lowering the quality-adjusted price. The quality improvements occur both from deploying LTE over larger blocks of spectrum, as explained above, and because "[g]reater cell site density will enable faster data speeds and improved coverage by reducing places where customers experience dropped connections, dead spots, and coverage gaps."<sup>108</sup>

72. Second, as explained above, the ability to use AT&T's and Leap's combined spectrum holdings on AT&T's spectrally efficient LTE network and to integrate Leap cell sites into AT&T's cell network enables AT&T to rely more heavily on deploying additional spectrum to expand capacity, rather than the higher cost options such as cell splits. This occurs because: (i) on the more spectrally efficient LTE network, each "unit" of spectrum can carry more traffic at a given quality level (see the Commission's capacity formula in note 78); (ii) existing cell towers will be able to make use of more spectrum (as the additional spectrum is deployed at these towers), and (iii) future cell splits will "go farther" since they will have a larger base of spectrum to re-use. As a result, marginal costs of expansion are reduced. As described above, such reductions in the marginal cost of expansion create incentives to lower prices (and/or increase quality, thus lowering quality-adjusted prices) and expand output.<sup>109</sup>

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<sup>107</sup> *Hogg Declaration*, ¶¶ 11-12.

<sup>108</sup> *Id.*, ¶ 12.

<sup>109</sup> Note that, within the Cricket footprint, the marginal cost savings described here and the network quality benefits for Cricket subscribers described above are additive: All existing Cricket subscribers experience better quality and, at the same time, the incremental cost of adding new subscribers is lower.



## 5. Other cost savings

73. The Moore Declaration also outlines additional cost synergies from the transaction that I understand AT&T identified using its well-established methodology for evaluating transactions and presented to its Board of Directors in support of the transaction. Among the cost synergies identified are several that, as a matter of economics, are properly understood to be marginal cost savings and thus they will lead to lower prices for consumers than would prevail absent such cost savings. In this section, I discuss some of these additional sources of marginal cost savings from the transaction.

74. First, Mr. Moore explains that “roaming expenses that Leap would have paid as a standalone company will be substantially reduced because AT&T will offer a significantly greater on-net footprint and expanded coverage in comparison to Leap’s current network.”<sup>110</sup> This synergy is economically straightforward: Today, Leap (and/or Cricket subscribers, via roaming fees) has to pay other carriers for access to their networks when Cricket subscribers are roaming. Once post-merger integration is achieved, Cricket subscribers will be able to rely on the nationwide AT&T network and roaming will be substantially reduced.<sup>111</sup> This is not to say that the use of the AT&T network is costless; it surely is not, given capacity considerations. Rather, the cost savings arise because other carriers likely include at least some markup over cost in the price they charge Leap for roaming access, but, post-merger, AT&T’s cost will include only the true cost of using the network. Such “elimination of double marginalization” is a true marginal cost saving:<sup>112</sup> the cost of providing service to Leap’s customers is reduced and prices (including roaming charges) should be expected to be lower as a result.

75. Second, Mr. Moore also describes “cost savings that will result from combining and optimizing customer support functions, including call center and billing operations, while

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<sup>110</sup> *Moore Declaration*, ¶ 22.

<sup>111</sup> *Id.*

<sup>112</sup> For a discussion of double marginalization, *see*, Dennis W. Carlton and Jeffrey M. Perloff (2005), *Modern Industrial Organization*, 4<sup>th</sup> ed. (Boston: Pearson/Addison-Wesley), at 415-417.

maintaining a high level of support.”<sup>113</sup> Such synergies reduce the cost associated with serving incremental customers and thus are an additional source of marginal cost savings.

76. Third, Mr. Moore describes reduced backhaul costs both because AT&T can shift some Leap backhaul to AT&T facilities (thus eliminating double marginalization, as with the roaming savings described above) and because AT&T can utilize its scale to negotiate better backhaul rates.<sup>114</sup> Each of these savings will reduce the operating expenses associated with cell sites. As explained above, attracting additional subscribers or additional usage by current subscribers both require network expansion including additional cell sites, so lowering the capital and operating costs associated with cell sites reduces the marginal costs of network expansion, thus creating incentives to lower prices and expand output.

## V. CONCLUSION

77. Although my work in this matter is ongoing, the evidence I have reviewed to date—including data, documents, and Declarations submitted by AT&T and Leap executives in these proceedings—leads me to the following conclusion: *Significant adverse competitive effects are unlikely and the transaction will result in the kinds of efficiencies that directly benefit consumers. As such, based on the evidence I have reviewed to date, I conclude that the proposed merger is procompetitive and in the public interest.*

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<sup>113</sup> Moore Declaration, ¶ 22.

<sup>114</sup> Id., ¶ 21.

I declare under penalty of perjury that the foregoing is true and correct to the best of my information and belief.

A handwritten signature in black ink, appearing to read 'M. A. Israel', is written over a horizontal line.

Mark A. Israel

August 1, 2013